7/5/1 (Item 1 from file: 350) Links
  Fulltext available through: Order File History
Derwent WPIX

0011224696 && *Drawing available*
WPI Acc no: 2002-163967/200221
XRPX Acc No: N2002-125199
Transceiver malfunction detector, for base stations in a cellular communications network, that computes a service quality threshold value for each monitored transceiver
Patent Assignee: TELEFONAKTIEBOLAGET ERICSSON L M (TELF)
Inventor: CUFFARO A; DESGAGNE M

Patent Family (4 patents, 93 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2001045276	A2	20010621	WO 2000SE2328	A	20001124	200221	B
AU 200120333	A	20010625	AU 200120333	A	20001124	200221	E
EP 1238480	A2	20020911	EP 2000983601	A	20001124	200267	E
			WO 2000SE2328	A	20001124		
US 6587686	B1	20030701	US 1999459941	A	19991214	200345	E

Priority Applications (no., kind, date): US 1999459941 A 19991214

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2001045276	A2	EN	26	5		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW					
Regional Designated States,Original	AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW					
AU 200120333	A	EN			Based on OPI patent	WO 2001045276
EP 1238480	A2	EN			PCT Application	WO 2000SE2328
					Based on OPI patent	WO 2001045276
Regional Designated States,Original	AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR					

Alerting Abstract WO A2
NOVELTY - A transceiver malfunction detector (25) stores information related to the service performance of base station transceivers (19) in a cellular communications network (10). The detector computes a service quality threshold value proportional to the average performance of the monitored transceivers so that the acceptability of transceiver performance can be determined.
USE - For the base stations in a cellular communications network.
ADVANTAGE - Automatically takes a malfunctioning base station transceiver out of service.
DESCRIPTION OF DRAWINGS - The figure shows a block diagram of a transceiver malfunction detector, for base stations in a cellular communications network.
10 Cellular communications network
19 Base station transceivers
25 Transceiver malfunction detector

7/5/2 (Item 2 from file: 350) <u>Links</u>
   Fulltext available through: <u>Order File History</u>
Derwent WPIX

0009476450 & & *Drawing available*
WPI Acc no: 1999-417560/199935
XRPX Acc No: N1999-311613
Intermittent network performance problem detecting method in telecommunication network
management system
Patent Assignee: MCI COMMUNICATIONS CORP (MCIC-N)
Inventor: BENCHECK M; BRANTON R; BROWNMILLER C; DEMOSS M; LANDON S; TRAN M T

<div align="center">Patent Family (1 patents, 1 & countries)</div>

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 5913036	A	19990615	US 1996670847	A	19960628	199935	B

Priority Applications (no., kind, date): US 1996670847 A 19960628

<div align="center">Patent Details</div>

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
US 5913036	A	EN	21	12	

Alerting Abstract US A
NOVELTY - An existence of potential network problem is determined by indication of performance
monitoring data received from a monitoring point. A problem handling process is initiated and maintained
if monitoring point has reported multiple non-zero at a predefined time even when error activity for
previous monitoring periods is detected and not reported.
DESCRIPTION - The problem handling process is cleared if no additional non-zero error activity is
reported during specific time period. The performance monitoring data is analyzed in relation to monitoring
data collected during previous monitoring periods. An INDEPENDENT CLAIM is also included for
intermittent network performance problem detecting system.
USE - In telecommunication network management system.
ADVANTAGE - Allows service provider to perform process initiation for addressing potential problems in
network performance, thereby minimizing the impact on customer's perception of the quality of
provisioned service. Processing efficiency is improved by precluding initiation of multiple independent
problem handling processes.
DESCRIPTION OF DRAWINGS - The figure shows a flowchart for intermittent network performance
problem detecting method.

9/5/2 (Item 2 from file: 350) Links
   Fulltext available through: Order File History
Derwent WPIX

0016003789 & & *Drawing available*
WPI Acc no: 2006-535418/200655
XRPX Acc No: N2006-428666
High-speed wireless data packet network for mobile terminal, generates and transmits network performance indicators to application server at time of data session initialization
Patent Assignee: NORTEL NETWORKS LTD (NELE)
Inventor: MACLEAN I; SUBRAMANIAM G

<div align="center">Patent Family (1 patents, 1 & countries)</div>

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 7072961	B1	20060704	US 2001290744	P	20010514	200655	B
			US 200136084	A	20011231		

Priority Applications (no., kind, date): US 2001290744 P 20010514; US 200136084 A 20011231

<div align="center">Patent Details</div>

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 7072961	B1	EN	8	4	Related to Provisional	US 2001290744

Alerting Abstract US B1
NOVELTY - A gateway device provides an interface between a high speed wireless data packet network and an application server placed within a wireline data packet network. The gateway device generates and transmits performance indicators of the wireless network to the server such that an optimal quality of service (QoS) level of data transfer is determined by the server when a data session is initialized.
DESCRIPTION - The gateway device is gateway general packet radio service (GPRS) support node (GGSN). The network performance indicators are QoS ratings, indication of transfer delays in network, indication of signal data unit error rates in network, indication of bit error ratios in network, indication of amount of jitter in network, indication of traffic congestion in network and indication of signal latency in the network. INDEPENDENT CLAIMS are also included for the following:

1. gateway general packet radio service (GPRS) support node; and
2. data transmission method of gateway general packet radio service support node in wireless data packet network.

USE - For delivering data to mobile terminal such as global system for mobile communications (GSM), voice radio and data transceiver for use in universal mobile telecommunications system (UMTS).
ADVANTAGE - The quality of service is adjusted by the server not only to match the service level agreement for the user of the mobile terminal but also to match the network conditions of the high speed wireless data packet network. The network resources are saved without any wastage by the server and the wireline data packet service provide a quality of service that is not deliverable to the wireless mobile terminal.
DESCRIPTION OF DRAWINGS - The figure shows a functional block diagram of general packet radio service (GPRS) network providing network performance indicators to application server.
100 GPRS network
112,140,144 mobile terminals
152 application server
160 quality of service monitor
168 network performance indicator signal

Derwent WPIX

0013431285 & & *Drawing available*
WPI Acc no: 2003-522128/200349
Related WPI Acc No: 2003-183525
XRPX Acc No: N2003-414224
Data unit serving method in asynchronous transfer mode network for real-time applications, involves transferring data units queued from different applications, from low level to high level buffer for serving
Patent Assignee: CHEN G (CHEN-I)
Inventor: CHEN G

Patent Family (1 patents, 1 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20030067932	A1	20030410	US 2001295601	P	20010604	200349	B
			US 200123281	A	20011213		

Priority Applications (no., kind, date): US 2001295601 P 20010604; US 200123281 A 20011213

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 20030067932	A1	EN	16	5	Related to Provisional	US 2001295601

Alerting Abstract US A1
NOVELTY - The data units such as asynchronous transfer mode (ATM) cells are queued from different applications in respective high and low level buffers (12,14) which have higher and lower priority for transmission on the ATM network. The data units are transferred from the low level buffer to high level buffer from which the data units are served.
DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

3. data units serving program; and
4. data units serving apparatus.

USE - For serving data units such as asynchronous transfer mode (ATM) cells in ATM network, broadband integrated service digital networks (B-ISDN) support services such as real-time applications such as audio and video interactive communications, telephone/video phone, high definition television (HDTV), multi-media conferencing medical diagnosis and real-time control applications.
ADVANTAGE - Enables providing data units with high quality of service (QoS) requirements for different applications.
DESCRIPTION OF DRAWINGS - The figure shows a block diagram of buffers for serving data units.
12 high level buffer
14 low level buffer

13/5/9 (Item 8 from file: 350) Links
  Fulltext available through: Order File History
Derwent WPIX
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0012909822 & & *Drawing available*
WPI Acc no: 2002-364937/200240
XRPX Acc No: N2002-285217
Telecommunication network has network management device to interpret composite parameter to identify network fault and performance
Patent Assignee: BARTLETT I (BART-I); CHAMBERS D F (CHAM-I); CRICHTON P (CRIC-I); MOTOROLA INC (MOTI); THOMAS H (THOM-I)
Inventor: BARTLETT I; BARTLETT I M; CHAMBERS D F; CRICHTON P; THOMAS H

Alerting Abstract GB A
NOVELTY - A correlating node correlates the data from multiple interconnected nodes in the network to generate a composite parameter. A network management device (48) interprets the composite parameter to identify a network fault and performance of the telecommunication network.
DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

5. Node for telecommunication network;
6. Telecommunication system managing method; and

7. computer program product for telecommunication system management.

USE - Telecommunication network such as broadband asynchronous transmission mode (ATM), network narrow band public switched telephone network (PSTN) and integrated service digital network (ISDN), internet, intranet, etc., for telecommunication systems such as internet, dual band radio frequency systems, combined global system for mobile communication/code division multiple access (GSM/CDMA) systems and for multimedia applications.

ADVANTAGE - Monitors reliability of the network without relying on locally defined and held self-test routines or centralized test procedures. Enables testing of physical links, service or content provision, quality of service (QOS) and other diverse parameters of network.

DESCRIPTION OF DRAWINGS - The figure shows an outline of the telecommunication network.

48 Network management device

Derwent WPIX

0013244832 & & *Drawing available*
WPI Acc no: 2003-330020/200331
Related WPI Acc No: 2003-001837
XRPX Acc No: N2003-264129
Call detail record generation method for circuit-switched telephone network, involves associating messages relating to different gateways based on unique identifiers of calls established through media gateway
Patent Assignee: ARCHIBALD D M (ARCH-I); CARSON D J (CARS-I); MCDONALD S (MCDO-I); TOMBERLIN J (TOMB-I); AGILENT TECHNOLOGIES INC (AGIL-N)
Inventor: ARCHIBALD D M; CARSON D J; MCDONALD S; TOMBERLIN J

Patent Family (2 patents, 1 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20030009557	A1	20030109	US 2001834046	A	20010412	200331	B
			US 2002222994	A	20020819		
US 7076040	B2	20060711	US 2002222994	A	20020819	200646	E

Priority Applications (no., kind, date): US 2001834046 A 20010412; US 2002222994 A 20020819

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 20030009557	A1	EN	12	5	C-I-P of application	US 2001834046

Alerting Abstract US A1
NOVELTY - Command messages are associated with response messages in accordance with a message addressing and gateway transaction information. Command and response messages relating to a specific gateway are associated with ID information having names of media end points within the gateways. The messages relating to different gateways are associated with unique identifiers of calls established through the gateway.
DESCRIPTION - An INDEPENDENT CLAIM is included for call detail record generation apparatus.
USE - For generating call detail records for telephone call and other services performed through circuit-switched telecommunication network.
ADVANTAGE - Since the messages associated with one another are combined to produce a call detail record irrespective of the identifying information contained in different messages, the application programs easily monitors the quality of service for billing purpose.
DESCRIPTION OF DRAWINGS - The figure shows a flowchart explaining the call detail record generation process.

19/5/9 (Item 9 from file: 350) Links
  Fulltext available through: Order File History
Derwent WPIX

0013012251 & & *Drawing available*
WPI Acc no: 2003-090534/200308
XRPX Acc No: N2003-071510
Quality of voice services analyzer system for telephone network, measures and analyzes quality of
service for multiple calls made over network
Patent Assignee: AMINE G A (AMIN-I)
Inventor: AMINE G A

Patent Family (1 patents, 1 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20020131604	A1	20020919	US 2000246816	P	20001108	200308	B
			US 20015485	A	20011108		

Priority Applications (no., kind, date): US 2000246816 P 20001108; US 20015485 A 20011108

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 20020131604	A1	EN	68	11	Related to Provisional	US 2000246816

Alerting Abstract US A1
NOVELTY - A high impedance measurement subsystem measures the quality of voice services passing
through each node of a telephone network. A quality of service analysis subsystem analyzes the quality of
service for multiple calls made over the network and a data store records the analysis results.
DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

8. Quality of voice services comparison system;
9. Communication protocol adherence analyzing system;
10. Voice service quality testing method;
11. Voice service quality monitoring method; and
12. Voice service quality measuring system.

USE - For packet-based voice communication systems such as telephone networks.
ADVANTAGE - Enhances the quality, reliability and interoperability of the packet-based voice
communication system, by analyzing the quality of their service.
DESCRIPTION OF DRAWINGS - The figure shows the block diagram of the analyzer system.

19/5/14 (Item 14 from file: 350) Links
  Fulltext available through: Order File History
Derwent WPIX

0011231406 & & *Drawing available*
WPI Acc no: 2002-170856/200222
Related WPI Acc No: 1999-458217; 2000-282810; 2000-490547; 2000-585979; 2000-671871; 2001-023206; 2002-105000; 2004-830853
XRPX Acc No: N2002-129973
Quality of service monitoring system in computer networks, has bandwidth management tool connected to firewall server, which dynamically allocates bandwidth to connection request based on traffic class of request
Patent Assignee: NOVELL INC (NOVE-N)
Inventor: SAWHNEY S; VAID A

<div align="center">Patent Family (1 patents, 1 & countries)</div>

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 6341309	B1	20020122	US 199747752	P	19970527	200222	B
			US 1997998314	A	19971224		

Priority Applications (no., kind, date): US 199747752 P 19970527; US 1997998314 A 19971224

<div align="center">Patent Details</div>

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 6341309	B1	EN	14	7	Related to Provisional	US 199747752

Alerting Abstract US B1
NOVELTY - A firewall server connected to several computers of a wide area network, stores a firewall program. A bandwidth management tool connected to the firewall server, monitors and manages the incoming and outgoing information of the server and dynamically allocates the bandwidth to the connection request based on the traffic class of the connection request.
DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

13. Bandwidth management tool installation method;
14. Computer readable medium storing bandwidth management tool installation program;
15. Electromagnetic signals propagated through computer network

USE - To monitor and allocate bandwidth in telecommunication network, computer networks such as internet, wide area network.
ADVANTAGE - Provides a single point or a single region to manage telecommunication traffic including directory serves and bandwidth management. The system is predominantly software based and is implemented into a pre-existing system by simple installation process. By dynamically allocating bandwidth based on traffic class of connection request, efficient implementation, good link utilization, guaranteed latency and localized control over all time intervals are enabled.
DESCRIPTION OF DRAWINGS - The figure shows the flowchart of bandwidth management tool installation process.

Fulltext available through: Order File History

0010883402 && *Drawing available*
WPI Acc no: 2001-503447/200156
XRPX Acc No: N2001-373341
Detecting service quality of telecommunication service in mobile radio telecommunications network by using SIM toolkit application to determine service quality data and transmit to network
Patent Assignee: MANNESMANN AG (MANS); VODAFONE AG (VODA-N); VODAFONE HOLDING GMBH (VODA-N); WOLFNER GMBH (WOLF-N)
Inventor: DINSING T; KLEIER S; TIMPHUS F

Patent Family (8 patents, 93 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
DE 10004847	A1	20010809	DE 10004847	A	20000202	200156	B
WO 2001058192	A1	20010809	WO 2001DE318	A	20010123	200156	E
AU 200137239	A	20010814	AU 200137239	A	20010123	200173	E
EP 1264498	A1	20021211	EP 2001909527	A	20010123	200301	E
			WO 2001DE318	A	20010123		
JP 2003528492	W	20030924	JP 2001557316	A	20010123	200365	E
			WO 2001DE318	A	20010123		
CN 1478360	A	20040225	CN 2001804424	A	20010123	200436	E
AU 774777	B2	20040708	AU 200137239	A	20010123	200470	E
CN 1275494	C	20060913	CN 2001804424	A	20010123	200706	E

Priority Applications (no., kind, date): DE 10004847 A 20000202

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
DE 10004847	A1	DE	5	1		
WO 2001058192	A1	DE				
National Designated States,Original					AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW	
Regional Designated States,Original					AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW	
AU 200137239	A	EN			Based on OPI patent	WO 2001058192
EP 1264498	A1	DE			PCT Application	WO 2001DE318
					Based on OPI patent	WO 2001058192
Regional Designated States,Original					AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR	
JP 2003528492	W	JA	13		PCT Application	WO 2001DE318
					Based on OPI patent	WO 2001058192
AU 774777	B2	EN			Previously issued patent	AU 200137239
					Based on OPI patent	WO 2001058192

Alerting Abstract DE A1
NOVELTY - The service quality data (6,12) representing the quality of service are detected using a module

(5) provided on the mobile subscriber identification card (3). The service quality data are transmitted from the mobile radio terminal (mobile telephone) (2) to the mobile radio telecommunication network. The module may be implemented as a SIM toolkit application (5). The data may be requested by the user of the mobile radio terminal.

DESCRIPTION - An INDEPENDENT CLAIM is included for a mobile radio subscriber identification card with a SIM toolkit application.

USE - E.g. for determining network non-accessibility, service non-accessibility, cut-off call ratio etc. in GSM or UMTS etc.

ADVANTAGE - Cheap and efficient determination of service quality, accurately representing the user's situation.

DESCRIPTION OF DRAWINGS - The drawing shows the determination and transmission of service quality data.

19/5/19 (Item 19 from file: 350) <u>Links</u>
   Fulltext available through: <u>Order File History</u>
Derwent WPIX

0010273139 & & *Drawing available*
WPI Acc no: 2000-585979/200055
Related WPI Acc No: 1999-458217; 2000-282810; 2000-490547; 2000-671871; 2001-023206; 2002-105000; 2002-170856; 2004-830853
XRPX Acc No: N2000-433554
Quality of service monitoring system in wide area network, includes flow and queuing control modules for transferring protocol based on non-protocol based information, respectively
Patent Assignee: UKIAH SOFTWARE INC (UKIA-N)
Inventor: PANDIT A; PUTTA S R; RAKOSHITZ G; VAID A

<center>Patent Family (1 patents, 1 & countries)</center>

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 6078953	A	20000620	US 199747752	P	19970527	200055	B
			US 199767857	P	19971205		
			US 1997999044	A	19971229		

Priority Applications (no., kind, date): US 199747752 P 19970527; US 199767857 P 19971205; US 1997999044 A 19971229

<center>Patent Details</center>

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 6078953	A	EN	20	9	Related to Provisional	US 199747752
					Related to Provisional	US 199767857

Alerting Abstract US A
NOVELTY - A traffic management tool is coupled to link connected to local area network, to receive Internet protocol (IP) packets which includes transmission control protocol (TCP) based on non-TCP based information. The tool comprises flow and queuing control modules for transferring TCP based on non-TCP based information, respectively.
DESCRIPTION - An INDEPENDENT CLAIM is also included for the method of managing information at gateway site.
USE - For monitoring and allocating bandwidth on telecommunication network at e.g. fire wall access point. For WAN or workstations such as Internet, LAN. For managing information at gate way site for improving quality of service to computer network.
ADVANTAGE - Provides a single point or single region to manage telecommunication traffic including directory services and bandwidth management. Since the system is software based, it can be implemented into pre-existing system by simple installation process. Provides more valued applications and users with reliable and fast service. Link efficiency improves due to overall congestion avoidance. Available bandwidth in a system is fairly shared between equally prioritized users. The tool presents a rule based measurement and real time monitoring capability for highly granular and time critical monitoring. The monitoring technique can be applied to any protocol.
DESCRIPTION OF DRAWINGS - The figure shows the flow diagram illustrating the flow control and queuing control.

Derwent WPIX
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0009968404 & & *Drawing available*
WPI Acc no: 2000-270711/200023
XRPX Acc No: N2000-202781
Operation and maintenance control point e.g. for self engineering telecommunications network, has performance monitoring function which monitors performance of network elements and determines quality of service in network
Patent Assignee: TELEFONAKTIEBOLAGET ERICSSON L M (TELF)
Inventor: GLITHO R; SVENSSON B

Patent Family (7 patents, 85 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2000011884	A1	20000302	WO 1999SE1346	A	19990806	200023	B
AU 199957670	A	20000314	AU 199957670	A	19990806	200031	E
US 6233449	B1	20010515	US 1998138719	A	19980824	200129	E
BR 199913166	A	20010515	BR 199913166	A	19990806	200130	E
			WO 1999SE1346	A	19990806		
MX 2001001918	A1	20010601	MX 20011918	A	20010222	200235	E
AU 758719	B	20030327	AU 199957670	A	19990806	200330	E
MX 227141	B	20050407	WO 1999SE1346	A	19990806	200571	E
			MX 20011918	A	20010222		

Priority Applications (no., kind, date): US 1998138719 A 19980824

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2000011884	A1	EN	28	6		
National Designated States,Original	AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZA ZW					
Regional Designated States,Original	AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW					
AU 199957670	A	EN			Based on OPI patent	WO 2000011884
BR 199913166	A	PT			PCT Application	WO 1999SE1346
					Based on OPI patent	WO 2000011884
AU 758719	B	EN			Previously issued patent	AU 9957670
					Based on OPI patent	WO 2000011884
MX 227141	B	ES			PCT Application	WO 1999SE1346
					Based on OPI patent	WO 2000011884

Alerting Abstract WO A1
NOVELTY - The operation and maintenance control point (OMCP) has a performance monitoring function which monitors performance of the network elements and determines quality of service (QoS) in the network. A trouble sniffer receives performance and QoS data from the performance monitoring function and detects faults within the network. An action proposal agent receives performance and QoS data from the performance monitoring function and fault data from the trouble sniffer and provides suggested correcting actions to the NMS.

DESCRIPTION - An INDEPENDENT CLAIM is included for a method of implementing a self engineering telecommunications network, a method of automatically changing cell sizes in order to shift traffic loads and eliminate performance and quality of service problems in network, a method of performing traffic load sharing between the cells, a method of configuring and testing a new hardware or software device, and a method of analyzing a reported fault from a hardware or software device in a network element.

USE - For self engineering telecommunications network. For cellular telecommunications network.

ADVANTAGE - Reduces processing load on NMS and rather than reporting symptoms, provides NMS with suggested corrective actions to correct reported problems.

DESCRIPTION OF DRAWINGS - The figure shows a simplified block diagram illustrating the flow of information in a self engineering telecommunications network in which the OMCP of the invention has been implemented.

Derwent WPIX

0009514815 & & *Drawing available*
WPI Acc no: 1999-458217/199938
Related WPI Acc No: 2000-282810; 2000-490547; 2000-585979; 2000-671871; 2001-023206; 2002-105000; 2002-170856; 2004-830853
XRPX Acc No: N1999-342765
Computer network traffic monitoring tool
Patent Assignee: NOVELL INC (NOVE-N); UKIAH SOFTWARE INC (UKIA-N)
Inventor: PANDIT A; PUTTA S; PUTTA S R; RAKOSHITZ G; VAID A

Patent Family (5 patents, 81 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 1999034544	A1	19990708	WO 1998US27396	A	19981223	199938	B
AU 199923076	A	19990719	AU 199923076	A	19981223	199951	E
EP 1050128	A1	20001108	EP 1998966473	A	19981223	200062	E
			WO 1998US27396	A	19981223		
JP 2002500469	W	20020108	WO 1998US27396	A	19981223	200206	E
			JP 2000527050	A	19981223		
US 6578077	B1	20030610	US 199747752	P	19970527	200340	E
			US 199767857	P	19971205		
			US 1997999517	A	19971229		

Priority Applications (no., kind, date): US 199747752 P 19970527; US 199767857 P 19971205; US 1997999517 A 19971229

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 1999034544	A1	EN	51	15		
National Designated States,Original		AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW				
Regional Designated States,Original		AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW				
AU 199923076	A	EN			Based on OPI patent	WO 1999034544
EP 1050128	A1	EN			PCT Application	WO 1998US27396
					Based on OPI patent	WO 1999034544
Regional Designated States,Original		DE FR GB IE				
JP 2002500469	W	JA	63		PCT Application	WO 1998US27396
					Based on OPI patent	WO 1999034544
US 6578077	B1	EN			Related to Provisional	US 199747752
					Related to Provisional	US 199767857

Alerting Abstract WO A1
NOVELTY - Tool is a GUI comprising a display with one part comprising a bandwidth consumption graphical chart representing information flow, the other comprising text information describing the flow of information. The chart is also a plot of failure rates against time and delay rates against time output on a

computer monitor. The display is real-time and the chart is a graph, histogram, bar or pie chart.

DESCRIPTION - There are INDEPENDENT CLAIMS for (1) a computer network system, (2) a network management method, (3) a computer system.

USE - Tool is for monitoring and allocating bandwidth on a telecommunication network at e.g. a firewall access point, WAN or the Internet.

ADVANTAGE - Tool improves WAN usage.

DESCRIPTION OF DRAWINGS - The drawing shows a simplified diagram of the system.

10/3K/6 (Item 6 from file: 348) Links
  Fulltext available through: Order File History
EUROPEAN PATENTS
01432911
High-level interface for QoS-based mobile multimedia applications
Schnittstelle auf hoher Ebene fur dienstqualitatbasierte mobile Multimedia-Anwendungen
Interface de haut niveau pour applications multimedia mobiles basees sur la qualite de service

Patent Assignee:

16. Sony Deutschland GmbH; (7231840)
    Kemperplatz 1; 10785 Berlin; (DE)
    (Proprietor designated states: all)

Inventor:

17. Mandato, Davide,c/o Sony Intern. (Europe) GmbH
    Adv. Tech. Center Stuttgart,Hedelfinger Str. 61; 70327 Stuttgart; (DE)
18. Kovacs, Erno, Dr.,c/o Sony Intern. (Europe) GmbH
    Adv. Tech. Center Stuttgart,Hedelfinger Str. 61; 70327 Stuttgart; (DE)
19. Rohrle, Klaus,c/o Sony Intern. (Europe) GmbH
    Adv. Tech. Center Stuttgart,Hedelfinger Str. 61; 70327 Stuttgart; (DE)
20. Schramm, Oliver,c/o Sony Intern. (Europe) GmbH
    Adv. Tech. Center Stuttgart,Hedelfinger Str. 61; 70327 Stuttgart; (DE)

Legal Representative:

21. Korber, Martin Hans et al (88321)
    Mitscherlich & Partner Patentanwalte Sonnenstrasse 33; 80331 Munchen; (DE)

	Country	Number	Kind	Date	
Patent	EP	1213895	A1	20020612	(Basic)
	EP	1213895	B1	20070905	
Application	EP	2000126975		20001208	

Extended Designated States:
AL; LT; LV; MK; RO; SI;

International Patent Class (V7): H04L-029/08

IPC	Level	Value	Position	Status	Version	Action	Source	Office
H04L-0029/08	A	I	F	B	20060101	20010528	H	EP

Abstract Word Count: 108
NOTE: 1
NOTE: Figure number on first page: 1

Type	Pub. Date	Kind	Text
Publication: English			
Procedural: English			
Application: English			

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200224	1639
SPEC A	(English)	200224	7580
CLAIMS B	(English)	200736	1433
CLAIMS B	(German)	200736	1348
CLAIMS B	(French)	200736	1917
SPEC B	(English)	200736	7342
Total Word Count (Document A) 9222			
Total Word Count (Document B) 12040			
Total Word Count (All Documents) 21262			

Specification: ...the stream: stream1, that is build inner FSM, with respect to the user: user1 and application: application1 and session: session1 and stream: stream1. For the sake of simplicity, only one transition is ... ...the innermost FSM of the overall hierarchical FSM. * Specify a Drop 514 action at session level for the transition medToMaxSessTr, with respect to stream: stream1 * Specify a Create 513 action at session level for the transition maxToMedSessTr (not shown above), with respect to association: association1 * Finally, activate the overall FSM. Additional QoS Contexts, Associations, and Streams can be later specified and activated. This however would imply a... ...process. * At this point the middleware has collected the information necessary to * 1. selects the QoS Broker plug-ins required to process the semantic of the given QoS Contract Type * 2. negotiate a Adaptation Path with the local resource controllers, with all the involved parties, and with the network telecommunication systems * 3. create the ChCs as required * 4. retrieve and chain multimedia components as required to achieve the given goals * 5. activate monitors * 6. evaluate QoS changes events and react accordingly * Synchronization issues: assumed that another Stream 502 stream2 has been... ...can be synchronized within the context of the Association association1 * Ad hoc disposal of any QoS Context, Association, or Stream, i.e. any not a priori known decision of any of... ...Annunciation of any incoming request from a remote peer to establish communications will typically involve application-level actions or even user interactions (e.g. to specify whether to accept or not such request). This process is part of the negotiation process. To this extent, the Application 101 shall be able to catch any of such events generated by the middleware 103/105 through the API 102. Example: * To this extent, the Application 101 shall therefore be able to intercept annunciation events (inluding those indicating the request of...

   Fulltext available through: Order File History
PCT FULLTEXT
00881993
METHODS, SYSTEMS, AND COMPUTER PROGRAM PRODUCTS FOR MANAGING A
SERVICE PROVIDED BY A NETWORK
PROCEDES, SYSTEMES ET PRODUITS DE PROGRAMME INFORMATIQUE POUR GERER UN
SERVICE FOURNI PAR UN RESEAU

Patent Applicant/Patent Assignee:

22. TRENDIUM INC; 13450 W. Sunrise Blvd., Suite 200, Sunrise, FL 33323
    US; US(Residence); US(Nationality)

Legal Representative:

23. MYERS BIGEL SIBLEY & SAJOVEC(agent)
    P.O. Box 37428, Raleigh, NC 27526; US;

	Country	Number	Kind	Date
Patent	WO	200215481	A2-A3	20020221
Application	WO	2001US25893		20010817
Priorities	US	2000225892		20000817

Designated States: (All protection types applied unless otherwise stated - for applications 2004+)

[EP] AT; BE; CH; CY; DE; DK; ES; FI; FR; GB;
GR; IE; IT; LU; MC; NL; PT; SE; TR;

[OA] BF; BJ; CF; CG; CI; CM; GA; GN; GQ; GW;
ML; MR; NE; SN; TD; TG;

[AP] GH; GM; KE; LS; MW; MZ; SD; SL; SZ; TZ;
UG; ZW;

[EA] AM; AZ; BY; KG; KZ; MD; RU; TJ; TM;

Publication Language: English
Filing Language: English
Fulltext word count: 24224
Detailed Description:

...PROVIDED BY A NETWORK
RELATED APPLICATION
This application claims the benefit of U. S. Provisional Application No.

60/225,892, filed August 17, 2000, the disclosure of which is hereby incorporated... ...been under pressure
to improve efficiency and cut costs and yet still maintain a high quality level of service for their customers.
In this competitive environment, one area 1 5 in which telecommunications providers... ...edge is in
the support systems that are used to operate, manage, and maintain the
telecommunications networks. These support systems may be called operational support systems (OSS).

Broadly stated, an OSS for a telecommunications network may include software services that are used to support the operations of a telecommunications network. Three support areas that may be addressed by a telecommunications OSS are 1) provisioning and... ...bill compilation, and customer care. Finally, service quality management may include such functions as service level agreements (SLAs), quality of service delivery, fault management, performance monitoring, error analysis, and security.

In general, OSS software solutions have been developed to address a... ...as one of the three support areas cited above at the network and/or service level. There exists a need, however, for improved service management systems and methods that may be...

PCT FULLTEXT
00808381
DYNAMIC UPGRADE OF QUALITY OF SERVICE IN A PACKET SWITCHED NETWORK
AMELIORATION DYNAMIQUE DE LA QUALITE DU SERVICE DANS UN RESEAU A
COMMUTATION PAR PAQUETS

Patent Applicant/Patent Assignee:

24. TELEFONAKTIEBOLAGET LM ERICSSON (publ); S-126 25 Stockholm
    SE; SE(Residence); SE(Nationality)

Legal Representative:

25. NORIN Klas(agent)
    Ericsson Radio Systems AB, Patent Unit Radio Access, S-164 80 Stockholm; SE;

	Country	Number	Kind	Date
Patent	WO	200141376	A2-A3	20010607
Application	WO	2000SE2353		20001128
Priorities	US	99452911		19991201

Designated States: (All protection types applied unless otherwise stated - for applications 2004+)

[EP] AT; BE; CH; CY; DE; DK; ES; FI; FR; GB;
GR; IE; IT; LU; MC; NL; PT; SE; TR;

[OA] BF; BJ; CF; CG; CI; CM; GA; GN; GW; ML;
MR; NE; SN; TD; TG;

[AP] GH; GM; KE; LS; MW; MZ; SD; SL; SZ; TZ;
UG; ZW;

[EA] AM; AZ; BY; KG; KZ; MD; RU; TJ; TM;

Publication Language: English
Filing Language: English
Fulltext word count: 7417

Detailed Description:

...the packet switched core network and the subscriber accepts a lower quality of service, the application
that the subscriber wants to run might perform poorly. For example, the lower quality of... ...Preferably, the
available quality of service is the same as the initially requested quality of service. As a result, the system
is able 1 0 to automatically upgrade or downgrade the quality of service offered to the user in accordance
with the initial request.

In accordance with one embodiment of the invention, the network notifies the user station of the
assignment of the alternative quality of service and, subsequently, of the availability of the potentially
more attractive quality of service. The user is then 1 5 able to accept or decline any assignment of an
alternative quality of service and any modifications of the ongoing quality of service.

In accordance with another embodiment of the invention, the packet-switched telecommunications system comprises a radio network for communicating data packet signals with the user station and a service or the core network bearer service cannot provide the requested quality of service, the system subsequently monitors congestion (i.e., after the packet session is established) in the networks to upgrade or...

PCT FULLTEXT
00806382
METHOD FOR AFFORDING A MARKET SPACE INTERFACE BETWEEN A PLURALITY OF MANUFACTURERS AND SERVICE PROVIDERS AND INSTALLATION MANAGEMENT VIA A MARKET SPACE INTERFACE
PROCEDE DE MISE A DISPOSITION D'UNE INTERFACE D'ESPACE DE MARCHE ENTRE UNE PLURALITE DE FABRICANTS ET DES FOURNISSEURS DE SERVICES ET GESTION D'UNE INSTALLATION VIA UNE INTERFACE D'ESPACE DE MARCHE

Patent Applicant/Patent Assignee:

26. ACCENTURE LLP; 1661 Page Mill Road, Palo Alto, CA 94304
     US; US(Residence); US(Nationality)

Legal Representative:

27. HICKMAN Paul L(et al)(agent)
     Oppenheimer Wolff & Donnelly LLP, 1400 Page Mill Road, Palo Alto, CA 94304; US;

	Country	Number	Kind	Date
Patent	WO	200139028	A2	20010531
Application	WO	2000US32308		20001122
Priorities	US	09444773		19991122
	US	09444798		19991122

Designated States: (All protection types applied unless otherwise stated - for applications 2004+)

[EP] AT; BE; CH; CY; DE; DK; ES; FI; FR; GB;
GR; IE; IT; LU; MC; NL; PT; SE; TR;

[OA] BF; BJ; CF; CG; CI; CM; GA; GN; GW; ML;
MR; NE; SN; TD; TG;

[AP] GH; GM; KE; LS; MW; MZ; SD; SL; SZ; TZ;
UG; ZW;

[EA] AM; AZ; BY; KG; KZ; MD; RU; TJ; TM;

Publication Language: English
Filing Language: English
Fulltext word count: 170977
Detailed Description:

...and for QoS violations, notifying Service Quality Management 1304.

The aim is to provide effective monitoring. Monitoring and reporting must.

provide SP management and customers meaningful and timely performance
information across the... ...specific SLA commitments and standard service commitments.

Figure 18 is a flowchart illustrating a Customer Quality of Service Management Process in accordance with a preferred embodiment. First, in step 1800, a hybrid network event is received which may include customer inquiries, required reports, completion notification, quality of service terms, service level agreement terms, service problem data, quality data, network performance data, and/or network configuration data. Next, in step 1802, the system determines customer reports to be generated and, in step 1804, generates the customer reports accordingly... ...with a preferred embodiment of the present invention. The Service Quality Management Process 1304 supports monitoring service or product quality on a service class basis in order to determine.

Whether service levels are being met consistently
Whether there... ...problems with the service or product
Whether the sale and use of the service is tracking to forecasts.

This process also encompasses taking appropriate action to keep service levels within agreed...

   Fulltext available through: Order File History
PCT FULLTEXT
00507924
METHOD AND APPARATUS FOR THE CREATION OF PERSONALIZED SUPERVISORY
AND CONTROL DATA ACQUISITION SYSTEMS FOR THE MANAGEMENT AND
INTEGRATION OF REAL-TIME ENTERPRISE-WIDE APPLICATIONS AND SYSTEMS
PROCEDE ET APPAREIL DE CREATION DE SYSTEMES D'ACQUISITION ET DE CONTROLE
DES DONNEES PERSONNALISES POUR LA GESTION ET L'INTEGRATION D'APPLICATIONS ET
DE SYSTEMES EN TEMPS REEL AU NIVEAU DE L'ENTREPRISE

Patent Applicant/Patent Assignee:

28. EUTECH CYBERNETICS PTE LTD;
    ; ;

	Country	Number	Kind	Date
Patent	WO	9939276	A1	19990805
Application	WO	99US962		19990115
Priorities	US	987438		19980115

Designated States: (All protection types applied unless otherwise stated - for applications 2004+)

Publication Language: English
Filing Language:
Fulltext word count: 22576
Detailed Description:

...AND
CONTROL DATA ACQUISITION SYSTEMS FOR THE MANAGEMENT AND INTEGRATION OF
REAL-TIME ENTERPRISE-WIDE APPLICATIONS AND SYSTEMS
INVENTORS
Bandu Wewalaarachchi, Aruna Sanjaya Gunasiri,
Priyantha Gunasekera, and Haritharan Gunasingham
BACKGROUND
FIELD... ...necessary where there is a need to guarantee real-time response to achieve a required quality of
service of various underlying devices, communications networks, operating systems, middleware
components and application components. Thus, real-time systems are widely applied to diverse
applications domains such as manufacturing, facilities management, power systems management, financial
analysis systems, and telecommunications.

By definition, a real-time system provides a result in response to an event in a time scale that is adequate to
meet the quality of service and performance needs of the application. Certain situations can be time
critical in which case they require a hard real-time system, in other words, a hardware based system
providing for hardware level integration of the various levels of control, monitoring, and communications
systems. For a hard real-time system, the validity of the returned results... ...time systems arises from the
need to respond to concurrent events occurring within a single application (or within multiple
applications) at the same time.

Also, a real-time system must provide some way of managing configuration management, fault
management, static and dynamic scheduling, and fault tolerance. However, some applications may be hard
real-time applications and others soft real-time applications. This results in increased complexity in

managing and correlating data and information generated by the...

PCT FULLTEXT
00456834
A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR SWITCHED TELEPHONY
COMMUNICATION
SYSTEME PROCEDE ET ARTICLE CONCU POUR LES COMMUNICATIONS TELEPHONIQUES
PAR RESEAU COMMUTE

Patent Applicant/Patent Assignee:

29. MCI WORLDCOM INC;
    ; ;

	Country	Number	Kind	Date
Patent	WO	9847298	A2	19981022
Application	WO	98US7927		19980415
Priorities	US	97835789		19970415
	US	97834320		19970415

Designated States: (All protection types applied unless otherwise stated - for applications 2004+)

Publication Language: English
Filing Language:
Fulltext word count: 156638

Detailed Description:

...gradual reduction of capacity in the face of multiple network failures.

6. Interoperable: The physical network model allows networks with
different characteristics to interoperate with different network elements.

7. Secure: The physical network model... ...transmission of information. It also has capabilities to ensure secure
access to network elements.

8. Monitoring: The physical network model provides well-defined
interfaces and access methods for monitoring the traffic on the network.

Security (see above) is integrated to prevent unauthorized access to... ...9. Partitionable: The physical
network model is (logically) partitionable to form separate administrative domains.

10. Quality of Service: The physical network model provides QOS
provisions such as wide range of qualities, adequate QOS for legacy
applications, congestion management and user-selectable QOS.

I 1. Universal Access: The physical network model does...

   Fulltext available through: Order File History

01434681
System and method for verifying usage and quality of interconnection services for a communication network
System und Verfahren zur Prufung der Benutzung und Qualitat von Verbindungsdiensten fur ein Kommunikationsnetzwerk
Systeme et methode pour verifier l'usage et la qualite de services d'interconnection pour un reseau de communication

Patent Assignee:

30. Inet Technologies, Inc.; (3099791)
     1500 North Greenville Avenue; Richardson, TX 75081; (US)
     (Applicant designated States: all)

Inventor:

31. Brehm, Grant M.
     4708 Sunflower Drive; McKinney, Texas 75050; (US)

32. Patterson, Tim K.
     400 Newport Drive; Allen, Texas 75013; (US)

33. Keough, Kevin
     7727 Shady Oak Drive; Aubrey, Texas 76227; (US)

Legal Representative:

34. Jackson, Richard Eric et al (62281)
     Carpmaels & Ransford, 43 Bloomsbury Square; London WC1A 2RA; (GB)

	Country	Number	Kind	Date	
Patent	EP	1215924	A2	20020619	(Basic)
	EP	1215924	A3	20050316	
Application	EP	2001310505		20011217	
Priorities	US	740047		20001218	

Designated States:
AT; BE; CH; CY; DE; DK; ES; FI; FR; GB;
GR; IE; IT; LI; LU; MC; NL; PT; SE; TR;

Extended Designated States:
AL; LT; LV; MK; RO; SI;

International Patent Class (V7): H04Q-003/00; H04M-015/26Abstract Word Count: 147
NOTE: 3
NOTE: Figure number on first page: 3

Type		Pub. Date	Kind	Text
Publication:	English			
Procedural:	English			
Application:	English			

Available Text	Language	Update	Word Count

CLAIMS A	(English)	200225	1078
SPEC A	(English)	200225	8500
Total Word Count (Document A) 9578			
Total Word Count (Document B) 0			
Total Word Count (All Documents) 9578			

Specification: ...collects messages on a per customer and/or a per service provider (carrier) basis. The tracked messages may be part of one of a number of message protocols, such as Integrated Services Digital Network - User Part (ISUP), Telephone User Part (TUP), Network User Part (TUP), Transaction Capabilities Application Part... ...Advanced Intelligent Network (AIN), or Integrated Network Application Part (INAP) calls or transactions.

Communications network monitoring equipment which may be used in conjunction with the present invention is disclosed in U.S. Patent No. 5,592,530, entitled TELEPHONE SWITCH DUAL MONITORS; U.S. Patent No. 6,028,914, entitled "SYSTEM AND METHOD FOR MONITORING PERFORMANCE STATISTICS IN A COMMUNICATIONS NETWORK" issued February 22, 2000; and in pending patent applications assigned serial numbers 09/092,256, entitled "SYSTEM AND METHOD FOR GENERATING QUALITY OF SERVICE STATISTICS FOR AN INTERNATIONAL COMMUNICATIONS NETWORK" filed June 5, 1998; 09/092,428, entitled "SYSTEM...

12/3K/8 (Item 8 from file: 348) Links
  Fulltext available through: Order File History
EUROPEAN PATENTS
00953335
LOAD SHARING GROUP OF SERVICE CONTROL POINTS CONNECTED TO A MEDIATION
POINT FOR TRAFFIC MANAGEMENT CONTROL
LASTVERTEILUNGSGRUPPE VON AN EINER VERMITTLUNGSSTELLE ANGESCHLOSSENEN
DIENSTSTEUERPUNKTEN FUR VERKEHRSVERWALTUNGSSTEUERUNG
GROUPE DE REPARTITION DE CHARGES DE POINTS DE COMMANDE DE SERVICES RELIES A
UN POINT DE MEDIATION A DES FINS DE GESTION DU TRAFIC

Patent Assignee:

35. Nortel Networks Limited; (3029040)
    World Trade Center of Montreal, 380 St. Antoine Street West, 8th floor; Montreal, Quebec H2Y 3Y4;
    (CA)
    (Proprietor designated states: all)

Inventor:

36. MOHARRAM, Omayama, El-Sayed
    1 Spruce Drive, R.R. 1; Carleton Place, Ontario K7C 3P1; (CA)

Legal Representative:

37. Anderson, Angela et al (78507)
    Nortel Networks IP Law Group, Harlow Laboratories, London Road; Harlow, Essex CM17 9NA; (GB)

	Country	Number	Kind	Date	
Patent	EP	872124	A1	19981021	(Basic)
	EP	872124	B1	20030312	
	WO	98019467		19980507	
Application	EP	97943690		19971008	
	WO	97CA737		19971008	
Priorities	US	29169	P	19961025	
	US	815260		19970312	

Designated States:
DE; FR; GB;

International Patent Class (V7): H04Q-003/00; H04Q-003/66
NOTE: No A-document published by EPO

Type	Pub. Date	Kind	Text
Publication: English			
Procedural: English			
Application: English			

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200311	1089
CLAIMS B	(German)	200311	1007
CLAIMS B	(French)	200311	1232
SPEC B	(English)	200311	4388
Total Word Count (Document A) 0			
Total Word Count (Document B) 7716			
Total Word Count (All Documents) 7716			

Specification: ...the various NEs and to ensure service reliability and network integrity.

The NTM consists of monitoring and control functions aimed at the detection of abnormal load conditions and excessive traffic congestion, activation, de-activation and monitoring of overload controls. The IN NTM requirements in (1) GR-1298-CORE, Advanced Intelligent Network... ...1. COM 11-R 104E, May 1995; and (3) ITU-T Recommendation E.412, Telephone Network and ISDN Quality of Service, Network Management and traffic Engineering, Network Management Controls, emphasize the need for automatic call-associated ...

12/3K/13 (Item 5 from file: 349) Links
   Fulltext available through: Order File History
PCT FULLTEXT

00842455
METHOD AND APPARATUS FOR MONITORING ACCESS TO A COMMUNICATIONS CIRCUIT
PROCEDE ET APPAREIL D'APPLICATION PROGRESSIVE D'UN ACCES DE SURVEILLANCE SANS A-COUPS A UN CIRCUIT DE COMMUNICATIONS, AU MOYEN D'UN SUPPORT DE TRANSMISSION GUIDE

Patent Applicant/Patent Assignee:

38. SPIRENT COMMUNICATIONS; 15200 Omega Drive, Rockville, MD 20850-3240
      US; US(Residence); US(Nationality)
      (For all designated states except: US)
39. BAILEY George R; 15200 Omega Drive, Rockville, MD 20850-3240
      US; US(Residence); US(Nationality)
      (Designated only for: US)

Patent Applicant/Inventor:

40. BAILEY George R
      15200 Omega Drive, Rockville, MD 20850-3240; US; US(Residence); US(Nationality); (Designated only for: US)

Legal Representative:

41. POULIQUEN Corinne M(et al)(agent)
      Katten Muchin Zavis, Customer No. 27160, 525 West Monroe Street, Suite 1600, Chicago, IL 60661-3693; US;

	Country	Number	Kind	Date
Patent	WO	200176204	A2-A3	20011011
Application	WO	2001US10378		20010402
Priorities	US	2000193359		20000331
	US	2000200390		20000428

Designated States: (All protection types applied unless otherwise stated - for applications 2004+)

[EP] AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; TR;

[OA] BF; BJ; CF; CG; CI; CM; GA; GN; GW; ML; MR; NE; SN; TD; TG;

[AP] GH; GM; KE; LS; MW; MZ; SD; SL; SZ; TZ; UG; ZW;

[EA] AM; AZ; BY; KG; KZ; MD; RU; TJ; TM;

Publication Language: English
Filing Language: English
Fulltext word count: 9235

Detailed Description:

...SDSL circuits. A design response to this difficulty is to raise the impedance of the monitor circuit to such a value, that abruptly connecting it to the subject SDSL circuit, causes... ...per thousand change in circuit impedance. However, practical limitations imposed by parasitic capacitance of the monitor circuit and connecting means to the subject twisted pair carrying DSL, amplifier and thermal noise... ...increased cost, are quickly reached.

Thus, there have been difficulties experienced during field trials in monitor access application while attempting to gain monitor access to certain types of DSL circuits, such as SDSL, without disruption. ISDN (Integrated Services Digital Network) modems also rely primarily on echo cancellation to function, and are thus, similarly sensitive to... ...accuracy impairments, an in some cases, cessation of information flow.

However, in order to ensure quality of service, it is often necessary to
unobtrusively monitor the progress of communications over the transmission media by connection to the media itself. Unless the monitor facility is permanently in place, the introduction or removal of the monitor, to some degree...

NPL

06323299 INSPEC Abstract Number: B9608-6230F-005
Title: ATM switching node system technology for effective maintainability
Author Miyaho, N.; Itoh, A.; Koyama, K.
Author Affiliation: NTT Network Service Syst. Labs., Tokyo, Japan
Conference Title: GLOBECOM '95. Communications for Global Harmony. IEEE Global
Telecommunications Conference. Technical Program Conference Record (Cat. No.95CH35756)   Part
vol.3   p. 1719-23 vol.3
Publisher: IEEE , New York, NY, USA
Publication Date: 1995 Country of Publication: USA 3 vol. xlvii+2317 pp.
ISBN: 0 7803 2509 5   Material Identity Number: XX96-00592
U.S. Copyright Clearance Center Code: 0 7803 2509 5/95/$4.00
Conference Title: Proceedings of GLOBECOM '95
Conference Sponsor: IEEE; IEEE Commun. Soc.; GLOBECOM; Telecommun. Authority of Singapore;
Singapore Telecom; NUS; NTU
Conference Date: 13-17 Nov. 1995   Conference Location: Singapore

Language: English   Document Type: Conference Paper (PA)
Treatment: Applications (A); Practical (P)
Abstract: Asynchronous transfer mode (ATM) technology has been widely studied and will be used to
implement the B-ISDN. Although ATM switching nodes are being deployed, much work is still needed to
resolve problems with their maintainability. This paper discusses the current research and experience
concerning the development of ATM nodes from the viewpoint of maintainability and clarifies the concepts
of hardware maintainability by introducing efficient connection test methods using an OAM cell-handling
mechanism, an ATM traffic-monitoring mechanism with QoS control, and a test cell generation/checking
mechanism for in-service connection testing. To increase maintainability, hardware failure
detection/indication methods, a layered management scheme upon detection of a line failure, and automatic
line switching to a stand-by system are proposed. (7 Refs)
 Subfile: B
Descriptors: asynchronous transfer mode; B-ISDN; electronic switching systems; maintenance
engineering; telecommunication control; telecommunication equipment testing; telecommunication
network management; telecommunication network reliability; telecommunication traffic;
telecommunication transmission lines
Identifiers: ATM switching node; system technology; asynchronous transfer mode; research ; hardware
maintainability; connection test methods; OAM cell-handling mechanism; ATM traffic-monitoring
mechanism; QoS control; test cell generation/checking mechanism; in-service connection testing; hardware
failure detection/indication; layered management scheme; line failure detection; automatic line switching;
stand-by system; B-ISDN
Class Codes: B6230F (Integrated switching and transmission systems); B6210C (Network management);
B6210M (ISDN)

10/5/3 (Item 3 from file: 2) <u>Links</u>

Title: QoS management and performance monitoring in ATM networks
Author Jae-il Jung; Gravey, A.
Author Affiliation: CNET, Lannion, France
  Part vol.2   p. 708-12 vol.2
Publisher: IEEE , New York, NY, USA
Publication Date: 1993 Country of Publication: USA   4 vol. (xxxix+2021+xvi+148) pp.
ISBN: 0 7803 0917 0
U.S. Copyright Clearance Center Code: 0 7803 0917 0/93/$03.00
Conference Title: Proceedings of GLOBECOM '93. IEEE Global Telecommunications Conference
Conference Sponsor: IEEE Houston Section; IEEE Galveston Bay Area Section; IEEE Commun. Soc
Conference Date: 29 Nov.-2 Dec. 1993   Conference Location: Houston, TX, USA

Language: English   Document Type: Conference Paper (PA)
Treatment: Practical (P); Theoretical (T)
Abstract: The purpose of this paper is to study quality of service (QoS) management and performance monitoring issues in B-ISDN. A QoS framework is proposed in order to satisfy the user's service quality requirements. The basic idea of this QoS framework is that the user's QoS requirement should be represented in terms of objectives set to QoS parameters which are in turn translated into asynchronous transfer mode (ATM) network performance (NP) parameters objectives; then, meeting NP parameters objectives ensures that the user's QoS requirements are fulfilled. Performance monitoring mechanisms based on operation and maintenance (OAM) cells flows in the ATM layer and estimation methods, which are both part of a QoS framework, are reviewed. We focus in particular on the definition and estimation of NP parameters in the case of non-conforming cells transmitted on an ATM connection. Finally, a QoS management scenario for the ATM layer is proposed. (8 Refs)
 Subfile: B
Descriptors: asynchronous transfer mode; B-ISDN; estimation theory; quality control; telecommunication network management; telecommunication services
Identifiers: QoS management; QoS performance monitoring; ATM networks; B- ISDN; QoS parameters; asynchronous transfer mode; network performance parameters; operation and maintenance; OAM; ATM layer; estimation methods
Class Codes: B6210C (Network management); B0170L (Inspection and quality control); B6210M (ISDN); B6150C (Switching theory)

INSPEC
05783051 INSPEC Abstract Number: B9411-6210M-021, C9411-7410F-045
Title: Performance management issues in ATM networks
Author Pujolle, G.; Gaiti, D.
Author Affiliation: Lab. PRiSM-CNRS, Univ. of Versailles, Versailles, France
Conference Title: IFIP TC6 International Conference on Information Networks and Data Communication
Conference Date: 18-21 April 1994   Conference Location: Funchal, Portugal

Language: English   Document Type: Conference Paper (PA); Journal Paper (JP)
Treatment: Practical (P); Theoretical (T)
Abstract: OAM (operation and maintenance) principles have been defined in the recommendation I.610.
The scope of this recommendation is to identify the minimum set of functions required to operate and
maintain the physical layer and the ATM layer aspects of the B-ISDN. OAM functions are provided
through bi-directional information flows. However, this recommendation is useful for communicating the
parameters but not really for management operations. Within OAM scopes, a major goal is to take in
charge quality of service and performance monitoring. The goal of this paper is to introduce performance
monitoring aspects and to focus on traffic and flow control that is a major aspect. To deal with this
performance management, a generic intelligent and integrated model for network management is described.
The main idea was to reduce the complexity of the management process by introducing intelligent concepts
as agents and blackboards. This architecture allows an intelligent management of broadband networks
through organizing the resources into domains and introducing a knowledge based system to manage each
domain. As an example of the use of this intelligent management architecture, we introduce a new
congestion control scheme. This scheme uses cell loss priority bit, explicit forward congestion indicator
and explicit backward congestion Indicator. The intelligent management will take in charge the control of
the different parameters due to the complexity to operate efficiently this control. We show that this new
control scheme allows performance to be increased by an order of magnitude. (26 Refs)
 Subfile: B C
Descriptors: asynchronous transfer mode; B-ISDN; computerised monitoring; intelligent networks;
knowledge based systems; telecommunication network management; telecommunication traffic;
telecommunications computer control
Identifiers: ATM networks; performance management issues; OAM principles; operation and
maintenance; physical layer; ATM layer; B-ISDN; OAM functions; bi-directional information flows;
quality of service; performance monitoring; traffic flow control; generic intelligent and integrated model;
network management; congestion control scheme; broadband networks; knowledge based system;
intelligent management architecture; cell loss priority bit; explicit forward congestion indicator; explicit
backward congestion indicator
Class Codes: B6210M (ISDN); B6210C (Network management); B6210Q (Intelligent networks); C7410F
(Communications); C6170 (Expert systems); C5620 (Computer networks and techniques); C3370
(Communication techniques)

05751744 INSPEC Abstract Number: B9410-6210M-016, C9410-5620-022
Title: An approach to identifying QoS problems
Author Mourelatou, K.E.; Bouloutas, A.T.; Anagnostou, M.E.
Author Affiliation: Dept. of Electr. & Comput. Eng., Nat. Tech. Univ. of Athens, Greece

Language: English   Document Type: Journal Paper (JP)
Treatment: Practical (P)
Abstract: Broadband ISDN will be the vehicle of a great variety of services. The quality of the services
provided be constantly monitored, evaluated and kept within specifications, despite the fact that the
information available to QoS monitoring agents is usually limited. In this paper, we examine how
performance problems can be resolved by combining the information available to agents that monitor end-
to-end QoS performance. We show that a central management system is capable of identifying the cause of
performance degradation quickly by correlating the information of many QoS monitoring centres. (2
Refs)
 Subfile: B C
Descriptors: B-ISDN; performance evaluation; telecommunication network management
Identifiers: broadband ISDN; central management system
Class Codes: B6210M (ISDN); B6210C (Network management); C5620 (Computer networks and
techniques); C5670 (Network performance)

05640119 INSPEC Abstract Number: B9405-6210M-044, C9405-5620-048
Title: Performance design and monitoring techniques for multimedia services service quality from
the customer viewpoint
Author Taka, M.; Murakami, H.
Journal: NTT Review   vol.6, no.1   p. 56-9

Publication Date: Jan. 1994 Country of Publication: Japan
CODEN: NTTREK ISSN: 0915-2334

Language: English   Document Type: Journal Paper (JP)
Treatment: Practical (P)
Abstract: Customer requirements for broadband-ISDN (B-ISDN) will be more advanced and diversified,
so performance design and monitoring techniques for the ATM network used for B-ISDN services will be
essential. This article presents the concept and methodologies of performance design and monitoring to
improve the quality of service perceived by customers. (3 Refs)
 Subfile: B C
Descriptors: asynchronous transfer mode; B-ISDN; multimedia systems; telecommunication network
management
Identifiers: monitoring techniques; multimedia services; broadband-ISDN; B- ISDN; performance design;
ATM network; B-ISDN services; methodologies of performance design; quality of service
Class Codes: B6210M (ISDN); B6150C (Switching theory); B6210C (Network management); C5620
(Computer networks and techniques)

03727599 INSPEC Abstract Number: B86054706
Title: Quality of service in ISDN networks
Author Soderberg, A.; Widl, W.
Author Affiliation: L.M. Ericsson, Stockholm, Sweden
Conference Title: GLOBECOM '85. IEEE Global Telecommunications Conference. Conference Record.
Communication Technology to Provide New Services (Cat. No.85CH2190-7)   p. 214-16 vol.1
Publisher: IEEE , New York, NY, USA
Publication Date: 1985 Country of Publication: USA 3 vol. xx+1529 pp.
U.S. Copyright Clearance Center Code: CH2190-7/85/0000-0214$01.00
Conference Sponsor: IEEE
Conference Date: 2-5 Dec. 1985   Conference Location: New Orleans, LA, USA

Language: English   Document Type: Conference Paper (PA)
Treatment: Practical (P)

Abstract: The ISDN network allows telecommunication services with different bandwidth and quality
requirements. Quality-of- service monitoring of the connections carrying the services will be required
when traffic is in progress. The most useful parameter to check the quality of a connection is error-rate
performance. Bit error ratios are easily measured between subscriber terminals, if redundancy in the
information flow of the service can be used for error control routines. The connection through the network
of an administration, consisting of subscriber loops, circuits and paths through the digital switching
networks, offers no practical possibility of end-to-end control. However, each part of the network involved
in the establishment of the connection can be monitored and evaluated separately. With the aid of operation
and maintenance systems, the performance values from the various network parts can be collected
continuously and evaluated to obtain the quality measure of the monitored connection. (2 Refs)
 Subfile: B
Descriptors: ISDN
Identifiers: ISDN networks; telecommunication services; bandwidth; quality ; error-rate; error control;
subscriber loops; digital switching networks
Class Codes: B6210M (ISDN); B6230F (Integrated switching and transmission systems)

  Fulltext available through: STIC Full Text Retrieval Options
06995244 E.I. No: EIP94121501810
Title: Performance design and monitoring techniques for multimedia services

Author: Taka, Masahiro; Murakami, Hideyo
Corporate Source: NTT
Language: English
Document Type: JA; (Journal Article) Treatment: G; (General Review); T; (Theoretical)
Journal Announcement: 9501W3
Abstract: Customer requirements for broadband-ISDN (B-ISDN) will be more advanced and diversified,
so performance design and monitoring techniques for the ATM network used for B-ISDN services will be
essential. This article presents the concept and methodologies of performance design and monitoring to
improve the quality of service perceived by customers. (Author abstract) 3 Refs.
Descriptors: *Telecommunication networks; Switching networks; Performance; Design; Quality
assurance; Data communication systems
Identifiers: Performance design; Monitoring techniques; Multimedia services; Customer requirements;
Broadband ISDN; Service quality
 Classification Codes:
913.3 (Quality Assurance & Control); 722.3 (Data Communication, Equipment & Techniques)
716 (Radar, Radio & TV Electronic Equipment); 718 (Telephone & Line Communications); 913
(Production Planning & Control); 722 (Computer Hardware)
71 (ELECTRONICS & COMMUNICATIONS); 91 (ENGINEERING MANAGEMENT); 72
(COMPUTERS & DATA PROCESSING)

06904149 E.I. No: EIP94071349340
Title: QoS management and performance monitoring in ATM networks

Author: Jung, Jae-il; Gravey, Annie
Corporate Source: France Telecom, Lannion, Fr
Conference Title: Proceedings of the IEEE Global Telecommunications Conference. Part 2 (of 4)
Conference Location: Houston, TX, USA   Conference Date: 19931129-19931202
Sponsor: IEEE
E.I. Conference No.: 20155
Source: IEEE Global Telecommunications Conference v 2 1993. Publ by IEEE, IEEE Service Center,
Piscataway, NJ, USA,93CH3250-8. p 708-712
Publication Year: 1993
CODEN: CRIEET ISBN: 0-7803-0917-0
Language: English
Document Type: CA; (Conference Article)   Treatment: G; (General Review); T; (Theoretical)
Journal Announcement: 9409W2
Abstract: The purpose of this paper is to study Quality of Service (QoS) management and performance
monitoring issues in B-ISDN. A QoS framework is proposed in order to satisfy the user's service quality
requirements. The basic idea of this QoS framework is that the user's QoS requirement should be
represented in terms of objectives set to QoS parameters which are in turn translated into Asynchronous
Transfer Mode (ATM) Network Performance (NP) parameters objectives; then, meeting NP parameters
objectives ensures that the user's QoS requirements are fulfilled. Performance monitoring mechanisms
based on Operation and Maintenance (OAM) cells flows in the ATM layer and estimation methods, which
are both part of a QoS framework, are reviewed. We focus in particular on the definition and estimation of
NP parameters in the case of non-conforming cells transmitted on an ATM connection. Finally, a QoS
management scenario for the ATM layer is proposed. (Author abstract) 8 Refs.
Descriptors: *Voice/data communication systems; Telecommunication services ; Telecommunication
networks; Information management; Performance; Operations research; Parameter estimation; Failure
analysis; Systems analysis; Quality assurance
Identifiers: Quality of service; Asynchronous transfer mode; Network performance parameters; Operation
and maintenance cells
 Classification Codes:
722.3 (Data Communication, Equipment & Techniques); 716.1 (Information & Communication Theory);
903.1 (Information Sources & Analysis); 912.3 (Operations Research); 731.1 (Control Systems); 921.6
(Numerical Methods)
722 (Computer Hardware); 716 (Radar, Radio & TV Electronic Equipment) ; 903 (Information Science);
912 (Industrial Engineering & Management); 731 (Automatic Control Principles); 921 (Applied
Mathematics)
72 (COMPUTERS & DATA PROCESSING); 71 (ELECTRONICS & COMMUNICATIONS); 90
(GENERAL ENGINEERING); 91 (ENGINEERING MANAGEMENT); 73 (CONTROL
ENGINEERING); 92 (ENGINEERING MATHEMATICS)

01125150 I97073906212
Quality-of-service architecture: Monitoring and control of multimedia communications

(Architektur fuer die Dienstguete: Monitoring und Steuerung der Multimedia-Kommunikation)
Hutchison, D; Mauthe, A; Yeadon, N
Dept. of Comput., Lancaster Univ., UK

Abstract:
For distributed multimedia applications the provision of system-wide quality of service (QoS) is essential.
The quality-of-service architecture (QoS-A) developed at Lancaster University offers a framework to
specify and implement the required performance properties of multimedia applications over integrated-
service networks in a heterogeneous environment. The work addresses the problem of lower-level QoS as
well as QoS support for multipeer multimedia applications operating in an open communication system.
QoS filters have been developed to deal with the problems of heterogeneity in group communication
environments. New challenges are also encountered in emerging mobile networks and user mobility; and
recent developments in the Internet community highlight the need for appropriate QoS support mechanisms
for multimedia applications. The paper describes how the QoS-A research at Lancaster University provides
a flexible framework for the monitoring and control of multimedia communications across the broad range
of computing systems and networks.

Descriptors: OPEN SYSTEMS; INTEGRATED SERVICES DIGITAL NETWORKS;
COMMUNICATION SERVICES; SYSTEM ARCHITECTURE; IMPLEMENTATION; COMPUTER
NETWORKS; MULTIMEDIA COMMUNICATION
Identifiers: MOBILE COMMUNICATION; QUALITY OF SERVICE ARCHITECTURE;
MULTIMEDIA COMMUNICATIONS; DISTRIBUTED MULTIMEDIA APPLICATIONS; SYSTEM
WIDE QUALITY OF SERVICE; INTEGRATED SERVICE NETWORKS; HETEROGENEOUS
ENVIRONMENT; LOWER LEVEL QOS; MULTIPEER MULTIMEDIA APPLICATIONS; OPEN
COMMUNICATION SYSTEM; GROUP COMMUNICATION ENVIRONMENTS; MOBILE
NETWORKS; USER MOBILITY; DIENSTGUETE; Multimedia-Kommunikationssystem; Dienstguete

00792110 E94074122062
An information model for the QOS monitoring of an ATM switch: from analysis to implementation

(Ein Informationsmodell fuer die QOS-Ueberwachung einer ATM-Vermittlungsstelle: von der Analyse zur Implementierung)

Arsenis, S; Simoni, N; Znaty, S
Telecom Paris, F

Abstract:
The information model is the conceptual support of every application, including network supervision and management. To obtain a unified view of the network resources, considering the complexity and heterogeneity of networks, it is important to base the management on a generic and powerful model. This paper presents a generic information model of network elements applied to the administration of an ATM switch. This hierarchical and modular model follows the guidelines of the different network management standards. Moreover, the authors have used an object oriented methodology. Based on the model, the ATM switch model has been implemented using an object-oriented programming language.

Descriptors: DATA NETWORK ADMINISTRATION; SUPERVISORY PROGRAMS; INFORMATION TRANSMISSION ; IMPLEMENTATION; MODEL STUDY; NETWORK ANALYSIS; B ISDN; BROADBAND TRANSMISSION; SYSTEM PARAMETERS; COMMUNICATION TRAFFIC; BEHAVIOUR--PERFORMANCE; OBJECT ORIENTED PROGRAMMING; EXCHANGE PLANTS; TRANSMISSION QUALITY; ASYNCHRONOUS TRANSFER MODE
Identifiers: Breitband-ISDN; Informationsmodell

2359417 H.W. Wilson Record Number: BAST01069194
QoS provisioning and tracking fluid policies in input queueing switches

Tabatabaee, Vahid ; Georgiadis, Leonidas; Tassiulas, Leandros
IEEE/ACM Transactions on Networking v. 9 no5 (Oct. 2001) p. 605-17
Document Type: Feature Article ISSN: 1063-6692 Language: English Record Status: New record

Descriptors: Scheduling algorithms; Integrated services digital networks ;

  14387902 PASCAL No.: 00-0041685

  Modeling and interoperability Test case generation of a real-time
QoS monitoring protocol

 CHINA B M; KIM S U; KANG S W; PARK C H
  ETRI, Korea, Republic of; Department of Telematics Engineering, Pukyung
National University, Pusan, Korea, Republic of; Korea Telecom R&D Group
, Korea, Republic of
  QoS monitoring is a kind of real-time systems which allows
each level of the system to track the ongoing QoS levels
achieved by the lower network layers. For these systems, real-time
communication between corresponding transport protocol objects is essential
for their correct behavior. When two or more entities are employed to
perform a certain task as in the case of communication protocols, the
capability to do so is called interoperability and considered as the
essential aspect of correctness of communication systems. This paper
describes a formal approach on modeling and interoperability test case
generation of a real-time QoS monitoring protocol. For this,
we specify the behavior of flow monitoring of transport layer
QoS protocol, i.e., METS protocol, which is proposed to address QoS
from an end-to-end's point of view, based on QoS architecture model which
includes ATM network in lower layers. We use a real-time Input/Output
Finite State Machine to model the behavior of real-time flow monitoring
over time. From the modeled real-time I/OFSM, we generate interoperability
test cases to check the correctness of METS protocol's flow monitoring
behaviors for two end systems. A new approach to efficient interoperability
testing is described and the method of interoperability test cases
generation is shown with the example of METS protocol's flow monitoring.
The current TTCN is not appropriate for testing real-time and multimedia
systems. Because test events in TTCN are for message-based system and not
for stream-based systems, the real-time in TTCN can only be approximated.
This paper also proposes the notation of real-time Abstract Test Suite by
means of real-time extension of TTCN. This approach gives the advantages
that only a few syntactical changes are necessary, and TTCN and real-time
TTCN are compatible. This formal approach on interoperability testing can
be applied to the real-time protocols related to IMT-2000, B-ISDN
and real-time systems.
English Descriptors: Telecommunication network; Computer
  network; Real time system; Service quality; Transmission protocol;
  Multimedia; Modeling; Finite state machine; Formal specification;
  Automatic test generation

French Descriptors: Reseau telecommunication; Reseau ordinateur;
  Systeme temps reel; Qualite service; Protocole transmission;
  Multimedia; Modelisation; Machine etat fini; Specification formelle;
  Generation automatique test; Interoperabilite

Classification Codes: 001D04B03A

13/5/5 (Item 3 from file: 8) Links
   Fulltext available through: STIC Full Text Retrieval Options
Ei Compendex(R)

08545430 E.I. No: EIP00045155205
Title: Programmable agents for flexible QoS management in IP networks

Author: De Meer, Hermann; La Corte, Aurelio; Puliafito, Antonio; Tomarchio, Orazio
Corporate Source: Columbia Univ, New York, NY, USA
Document Type: JA; (Journal Article) Treatment: G; (General Review)
Journal Announcement: 0006W3
Abstract: Network programmability seems to be a promising solution to network management and quality
of service (QoS) control. Software mobile-agents technology is boosting the evolution toward application-
level control of network functionalities. Code may be deployed in the network dynamically and on demand
for the benefit of applications or application classes. Agents support a dynamic distribution of control and
management functions across networks, thus increasing flexibility and efficiency. We propose to use
mobile-agent technology to overcome some of the problems inherent in current Internet technology. We
focus our attention to QoS monitoring, being locally significant in network subdomains, and realize a QoS
management strategy in response to variations of user, customer of application requirements, and of the
network state. We describe our experience and the results obtained from our testbed, where software agents
are instantiated, executed, migrated, and suspended in order to implement flexible QoS management in IP
networks. (Author abstract) 31 Refs.
Descriptors: *Internet; Network protocols; Telecommunication services; Artificial intelligence;
Computer software
Identifiers: Mobile-agent technology
  Classification Codes:
723.4 (Artificial Intelligence)
723 (Computer Software); 716 (Radar, Radio & TV Electronic Equipment)
72 (COMPUTERS & DATA PROCESSING); 71 (ELECTRONICS & COMMUNICATIONS)

13/5/6 (Item 1 from file: 144) <u>Links</u>
   Fulltext available through: <u>STIC Full Text Retrieval Options</u>
Pascal
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  15200932   PASCAL No.: 01-0366418

  An approach for QoS scheduling on the application level for
wireless networks
   Networking : Colmar, 9-13 July 2001

  HOANG Dang-Hai; RESCHKE Dietrich
  LORENZ Pascal, ed
  Technical University of Ilmenau, 98693 Ilmenau, Germany
  ICN 2001 : international conference on networking, 1 (Colmar FRA)
2001-07-09
  Journal: Lecture notes in computer science,
2001, 2093 vol 1, 599-609

  In this paper, we propose an architecture for Quality of Service (QoS)
control with a proxy server for multimedia applications in heterogeneous
communication environments of wired and wireless networks. The concept is
based on a traffic scheduling mechanism on the application
level for supporting various mobile user traffic streams. The proxy
server is located in the base station and is responsible for user profile
management and QoS adjustment. Via an application user interface, the user
can click on a quality button to send an user feedback to express the
actual required QoS. The concept is furthermore characterized by the
gathering of queue lengths of packet flows and the calculating of the loss
probability for QoS monitoring in the proxy server.

English Descriptors: Queue length; Multimedia; Cache memory; Service
  quality; Telecommunication network; Wireless
  telecommunication; Quality control; Communication network; Radio
  communication; User interface; Monitoring; Surveillance; Scheduling

French Descriptors: Longueur file; Multimedia; Antememoire; Qualite service
  ; Reseau telecommunication; Telecommunication sans fil; Controle qualite;
  Reseau communication; Radiocommunication; Interface utilisateur;
  Monitorage; Surveillance; Ordonnancement

Classification Codes: 001D04B03